CONNECTICUT

)verview of Ground Water Resources

Ground water constitutes an important natural resource that supplies lomestic water to approximately one third of the state's 3.1 million people, ts degree of importance is increasing because of limited land areas available or surface reservoirs and the cost of developing additional surface systems. According to the USGS National Water Summary 1984, approximately 11 lercent of the total fresh withdrawals within the state were from ground vater. Approximately 17 percent of public water supplies are from ground yater; essentially all of rural domestic supplies are from ground water.

Connecticut has a variety of physiographic and geologic conditions that ause considerable variability in ground water conditions throughout the tate. Two principal types of aquifers underlie Connecticut—unconsoli-.ated stratified glacial drift aquifers, which are composed of sand and ravel, and bedrock aquifers composed of sedimentary, igneous, and meta-lorphic rocks. The stratified drift aquifers are the most productive sources f ground water in the state. These glacially derived sedimentary aquifers ccur mainly in the river valleys of the state and are particularly predomi-ant in the Connecticut Valley lowland.

Bedrock aquifers underlie the entire state. They are the principal source f water for rural homes and small public supplies, as well as some commer-ial establishments and industries. These aquifers can be subdivided into a sdimentary system, which is composed of sandstone, shales, siltstones; the pieous crystalline system, which is composed predominantly of granite, letamorphic gneiss, and schist; and the carbonate system, which is com-osed of marble. The sedimentary system underlies the Connecticut Valley )wland, with the carbonate system occupying a small area in the western art of Connecticut, The crystalline aquifer underlies the eastern and west-rn parts of the state. Well yields in both of the sedimentary and crystalline edrock systems are generally low but sufficient to supply small demands, /ater quality in the bedrock aquifers is generally suitable for most uses.

The largest ground water withdrawals are concentrated in Hartford, airfield, Middlesex, and New Haven counties, where most of the water is sed for public supply. The majority of this withdrawal is from the strati-ed drift aquifers (see Table 3.5).

round Water Quality Issues

The stratified drift aquifers are the most susceptible to contamination id are also the most important ground water resources of the state. The

